observed (correlation coefficient -0.24 [for SBP], -0.15 [for DBP], and -0.23 [for MAP], all P<0.01), even after adjusting for cardiovascular confounding factors, this negative correlation remained (Standard β=-0.087 [for SBP], -3.667 [for DBP], and -7.881 [for MABP], all P<0.001).
Conclusions: A negative correlation between plasma apelin levels and blood pressure was found in this 1000 population-based epidemiological study, which indicates that apelin may have an association with blood pressure and the apelin and its receptor may become a potential therapeutic target of anti-hypertensive treatment.

GW25-e2342

Changes in the diagnosis and treatment of hospitalized patients with acute coronary syndrome from 2006 to 2012

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Objectives: To explore the changes in the diagnosis and treatment of hospitalized patients with acute coronary syndrome (ACS) from 2006 to 2012.
Methods: This was a multi-center cross-sectional study. All study patients were respectively enrolled from 65 hospitals from 31 provinces in 2006 (n=3323) known as the BRIG project phase I stage study and from 34 hospitals from 21 provinces in 2012 (n=3391) known as the BRIG project phase III stage study. Patients were included if they were 18 years of age and older, and they were diagnosed as ACS at discharge. Patients were excluded if they were susceptible of ACS due to accidents or traumas, or if they had participated in any drug clinical trials. Only patients with complete data were analyzed, and there were both 3124 qualified patients from BRIG project-I stage and BRIG project-III stage studies.
Results: (1) The ACS patients hospitalized in 2012 were younger than those in 2006 (61.9 years versus 64.7 years, P<0.01), and the percentage of patients ≤ 60 years was increased in 2012 [42.5% (1327/3124)] compared with those in 2006 [32.1% (1004/3124)]; (2) The percentages of ACS patients complicated with hypertension [(61.2% (1853/3124) versus 53.0% (1655/3124)], diabetes [24.3% (760/3124) versus 16.4% (513/3124)], and hypercholesterolemia [20.3% (633/3124) versus 6.3% (197/3124)] in 2012 were consistently higher than that in 2006 (P<0.01); (3) The detection rate of coronary angiogram was 28.6% (894/3124) in 2006, and was increased to 68.6% (2144/3124) in 2012, and this increase was obvious for women, patients aged 60 years and more, and patients from the secondary hospitals. Moreover, the rate of intervention treatment was increased from 24.6% (770/3124) in 2006 to 51.0% (1594/3124) in 2012, especially for patients with acute ST segment elevation myocardial infarction (increased by 2.7-fold) and patients from the secondary hospitals (increased by 1.5-fold); (4) The administration rate of aspirin, clopidogrel, and statins in 2012 was higher than that in 2006, especially for clopidogrel (increased by 102.8%) and statins (increased by 28.9%).
Conclusions: With the change of time, there was a trend of the younger age of onset for ACS patients in China and high proportions of complicated diseases, as well as an improvement in clinical treatment levels and the application of secondary prevention drugs treatment recommended by the guidelines.

GW25-e3128

Incidence and distributing features of chronic heart failure in aged population of Xinjiang

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Objectives: To investigate the prevalence and distributing feature of chronic heart failure (CHF) in aged population of Xinjiang.
Methods: Four-stage random sampling method was employed in this cross section study to analyze the prevalence, risk factors and combined cardiovascular diseasesof heart failureamongdifferent ethnic groups in aged (≥60 years and over) population of Xinjiang. Study population was recruited from 6 different regions of Xinjiang (Urumqi, Karamay, Fukang, Turfan Basin, Hetian, Ili Kazakh Autonomous Prefecture).
Results: 3608 participants were surveyed, and the response rate was 83.36%. The prevalence of CHF was 4.60% in this cohort, in which it was 2.88% in Han, 5.76% in Uighurand 6.74% in Kazakh. The prevalence of CHF in different ethnics was varied (χ^2=22.62, P=0.00). Male took the main part in the CHF prevalence, which was 5.91% and female was 3.33%, the different was significant (χ^2=13.65, P=0.00). The prevalence of CHF increased inproportionwithaging and was3.59%, 3.99%, 5.43% and 7.35% in 60-64, 65-69, 70-74, 75 years and over age groups, respectively. The prevalence of different age groups exist significant differences (χ^2=13.29, P=0.004), increased with age, the prevalence of CHF showed a rising trend (χ^2=12.07, P=0.001). Study found that atrial fibrillation is an independent risk factor for coronary heart disease CHF (OR=5.20, 95% CI 2.32-11.70 and OR=5.54, 95% CI 3.83-8.02).166 cases of heart failure patients, 94 patients suffering from hypertension, accounting for 56.62%; 50 with coronary heart disease, accounting for 30.12%; 18 with diabetes, accounting for 10.84%; 35 with valvular heart diseases, accounting for 21.08% and 9 with atrial fibrillation, accounting for 5.42%. The most common combined single cardiovascular disease was hypertension (50 cases, the constituent ratio was 30.12%), followed by coronary heart disease (12 cases, 7.23%).
Conclusions: The prevalence of heart failure inaged population over 60 years is high in Xinjiang, and there are ethnic differences. Hypertension and coronary heart disease were thebasic cardiovascular disease combined with heart failure in the various ethnic groups in Xinjiang. It is beneficial to strengthen epidemiological study of chronic heart failure susceptible population to increase prevention and treatment.

GW25-e4329

The epidemiological investigation of hypertension in original residents of affiliated islands of Dalian Changhai County

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Objectives: To investigate the prevalence and risk factors of hypertension in affiliated islands of Dalian Changhai County.
Methods: Adopting the cross-sectional study and taking the overall random sampling method, we selected the 2616 original inhabitants of Sea island, Guanglu island, Zhangzi island and its subsidiaries Talian island, Dahao island, Xiaohao island for interviewing and doing the research as follows, Designing clinical epidemiology questionnaire.Collecting the objects related to human parameters (blood pressure, height, weight, waist circumference). Counting the BMI. Recording the family history, unhealthy lifestyle (smoking, alcohol consumption, lack of exercise, and did not receive health education), previous medical history (heart disease, diabetes, etc.), history of drug use. Testing blood biochemical parameters (total cholesterol, triglycerides, low-density lipoprotein cholesterol, high density lipoprotein cholesterol, creatinine, uric acid, total bilirubin, alanine aminotransferase). Diagnostic criteria of hypertension based on the Chinese Hypertension Prevention Guide (Revised 2010). We did the survey of the hypertension prevalence, awareness and treatment rates of residents of the region and got the analysis of the hypertension risk factors of that residents. According to the presence or absence of hypertension, we devided the objects into hypertension group and normal blood pressure group, and analysis the difference between the two groups. Statistical analysis was performed using SPSS18.0 software package, the rate is calculated and compared using the chi-square test. The groups were compared using non-parametric Mann-Whitney test and using logistic regression to analysis hypertension risk factors.
Results: (1) Among the 2626 original inhabitants of islands, The hypertension prevalence rate is 53.86% (1409/2616), the awareness rate is 58.84% (829/1409), the treatment rate is 45.78% (645/1409). (2) In this crowd, the male got a higher prevelance of hypertension than the female (59.5% vs 51.6%, χ^2=13.23, P<0.001). Age, BMI, waist circumference in the group of hypertension is higher than that of normal blood pressure group. The ratio of drinker, dyslipidemia, family history, abnormal renal function, abnormal liver function, merging other cardiovascular diseases in the group of hypertension is higher than the ratio of the normal blood pressure group. (3) Logistic regression analysis indicated that age, waist circumference, obesity, LDL, UA, family history of hypertension, history of coronary heart disease, impaired glucose tolerance / history of diabetes is an independent risk factor of hypertension.
Conclusions: The adult of Dalian Changhai County affiliated islands prevalence of hypertension was 53.86%, significantly higher than in other regions. Increased prevalence of hypertension associated with a number of factors, including unhealthy lifestyles have a major impact, should strengthen public education and blood pressure monitoring system for hypertension knowledge to reduce the prevalence of high blood pressure, reduce the incidence of complications of hypertension.

GW25-e4395

Influence of cigarette smoking on burden and characteristic of coronary artery plaques in Chinese men

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Objectives: To analyse the effects of different current smoking status on the burden and characteristic of coronary artery plaques in Chinese men.
Methods: 1920 individuals were stratified into three groups (never, current, former) according to their smoking status. The association of different smoking status with the coronary artery plaques were assessed, the univariable and multivariable logistic regression assess the association current and former smoker with coronary artery plaques.
Results: The prevalences of anyplaque, significant stenosis and CACS ≥10 were the highest in the current smoker (all P<0.05). The proportion of calcified plaques was the lowest and the prevalence of non-calcified plaques was the highest in current smoker (both P<0.01). The percent of calcified plaques was significant lower and non-calcified plaques was significant higher in higher than lower pack-years group (both P<0.05). The higher pack-years group had significant higher percents of anyplaque, significant stenosis, ≥2/LM vessels disease and CACS≥10 than lower pack-years group (all P<0.05). The current smoker with higher pack-years was the stronger risk factor for significant stenosis, CACS ≥10, non-calcifid and mix plaque (all P<0.05).
Conclusions: The current smokers have the greatest coronary artery burden and highest percent of non-calcified plaques; the current smokers with higher pack-years was the stongest predictor for coronary artery burden, non-calcified and mixed plaques, but not never and former smokers.